

No. 649,032.

Patented May 8, 1900.

H. YSSKIN.
CAR BRAKE.

(Application filed Oct. 2, 1899.)

(No Model.)

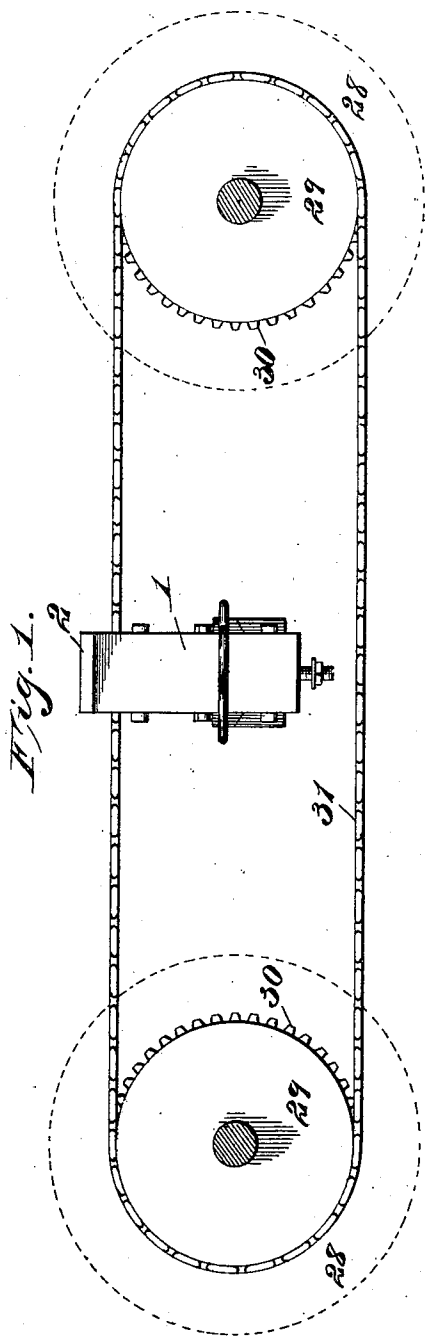


Fig. 0.

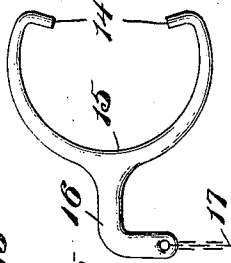


Fig. 7.

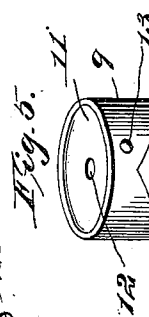


Fig. 5.



Fig. 3.

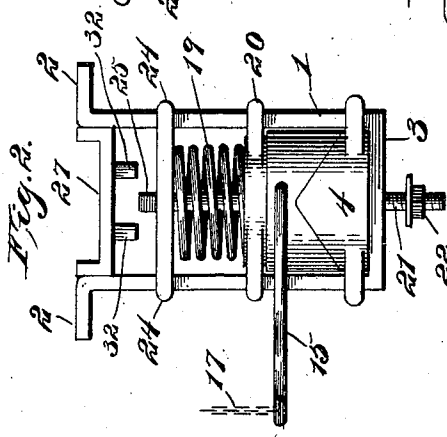


Fig. 2.



Fig. 4.

Witnesses
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CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 649,032, dated May 8, 1900.

Application filed October 2, 1899. Serial No. 732,346. (No model.)

To all whom it may concern:

Be it known that I, HERMAN YSSKIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification.

My invention relates to brakes for street or railway cars, the primary object being to provide a simple and effective mechanism for checking the speed of a car or bringing it to a full stop suddenly.

The construction of the improvement will be fully described hereinafter and its novel features defined in the appended claims, in connection with the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved brake mechanism applied to the wheels of a car. Fig. 2 is a front elevation of the brake-operating mechanism detached from the car. Fig. 3 is a view in perspective of a vertically-movable rod and plate, the latter having a tooth or projection to engage the brake-chain. Fig. 4 is a perspective view of the movable spring-supporting plate of the device. Fig. 5 is a view in perspective of two coöperating cam-rings constituting a feature of the invention. Fig. 6 is a transverse vertical section of the top plate of the brake, and Fig. 7 is a plan view of the turning yoke or bail.

The reference-numeral 1 designates a yoke or frame of U shape provided with oppositely-projecting flanges 2, adapted to be bolted to a car-truck in position to depend therefrom. On the cross-bar 3 of the frame 1 is supported a ring or sleeve 4, formed at opposite sides with parallel projecting arms 5, which embrace the outer sides of the frame 1. The upper side of the ring or sleeve 4 is formed with oppositely-inclined cam-surfaces 6 and 7, and its lower side is closed by a base 8, formed with a central perforation.

9 designates a ring or sleeve formed on its under side with cam-faces 10, which oppose those of the ring 4 and coöperate therewith. The upper side of the ring or sleeve 9 is closed by a concave disk 11, formed with a central opening 12 and with diametrically-opposite holes 13 to receive the inwardly-bent ends 14 of an operating yoke or bail 15, formed with

an angle-arm 16, to the end of which is attached one end of a chain 17, the opposite end of which passes rearward to a lever or brake-rod. (Not shown.)

Upon the upper side of the ring 9 is loosely supported a disk or plate 18 of concave form on its upper surface to form a seat for the lower end of a coil-spring 19.

The disk or plate 18 is provided with parallel arms 20, projecting from opposite sides of the disk to embrace the sides of the frame 1. This disk 18 is also formed with a central opening.

21 designates a bolt which extends down through the spring 19, the disk 18, the disks 11 and 8, and the cross-bar 3 of the frame, extending below the bar 3 to receive a nut 22. To the upper end of the bolt 21 is rigidly attached a head comprising a plate 23, slotted at its ends to form guide-arms 24, which embrace the sides of the frame 1, and provided on its upper side with a tooth or projection 25, adapted to enter a recess 26 on the under surface of a cross-bar 27, secured between the side bars of the frame 1.

The car-wheels 28 are provided with lateral circular extensions 29, formed with peripheral teeth 30, around which travels a sprocket-chain 31, constituting the brake proper.

The operation of the mechanism as thus described is as follows: A backward pull upon the chain 17 and yoke 15 imparts a partial rotation to the sleeve or ring 9, causing the latter to ride up over the cam-surfaces 6 and 7 of the non-rotatable sleeve 4. This movement of the sleeve or ring 9 lifts the disk 18 and the plate 23 of the bolt, the length of the bolt permitting this movement of the plate 23 and causing its tooth 25 to enter the recess 26 of the cross-bar 27 to arrest the movement of the chain and wheels 28. The degree of force imparted to the pull upon the chain 31 determines the braking action, and, as will be apparent, this force may be gradually applied to merely retard the wheels or suddenly to effect a quick stoppage of the car.

I preferably provide the cross-bar 27 with depending parallel lugs 32, which act as guards to keep the chain in proper alinement to be engaged by the tooth 25.

I claim—

1. The combination with car-wheels and

sprocket-wheels concentric therewith, of a
brake-chain connecting said sprocket-wheels;
and brake mechanism comprising a frame
through which the chain passes; a fixed and
5 a movable cam within said frame; a yoke or
bail for oscillating the movable cam; a disk
provided with guide-arms arranged above the
cams; a spiral spring resting on said disk; a
10 bolt extending through the cams, disk and
spring; a plate secured to the bolt and pro-
vided with a tooth or projection; and a cross-
bar at the upper end of the frame formed on
its under surface with a recess.

2. A car-brake comprising a U-shaped de-
15 pending frame; a stationary cam-ring sup-
ported by said frame; a movable cam-ring
coöperating with the stationary cam-ring; a

vertically-movable plate resting on said mov-
able cam-ring; a coil-spring resting upon the
plate; a bolt extending through the bottom 20
of the frame, and the elements arranged
therein, and having a head or plate provided
with an upwardly-projecting tooth or projec-
tion; a cross-bar at the top of the frame
formed with a recess to receive said tooth; 25
and a brake-chain adapted to be engaged by
said tooth.

In testimony whereof I affix my signature
in presence of two witnesses.

HERMAN YSSKIN.

Witnesses:

WM. DOGOLEDSKY,
DAVID LANGAH.